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State of Utah DEPARTMENT OF NATURAL RESOURCES Division of Oil, Gas & Mining

MICHAEL R. STYLER Executive Director

JOHN R. BAZA Division Director

Inspection Report Minerals Regulatory Program September 6, 2016

Mine Name: Black Rock Quarry	Permit Number: M/027/0088		
Operator Name: Stone Resources LLC	Inspection Date: July 19, 2016		
Inspector(s): Peter Brinton	Time: afternoon		
Other Participants: none	Mine Status: Reclaimed		

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds		\boxtimes	
2. Public Safety (shafts, adits, trash, signs, highwalls)	Π	Ē	П
3. Protection of Drainages / Erosion Control			
4. Deleterious Material			Ħ
5. Roads (maintenance, surfacing, dust control, safety)			Ħ
6. Reclamation	П		H
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)		П	H
8. Soils			П
9. Revegetation	$\overline{\boxtimes}$	፳ .	
10. Other	Ī	Ħ	

Permit fee: N/A **Bond Renewal Date:** N/A **Bond Amount:** \$7,000 (upon processing of a recent release)

Inspection Purpose: Evaluate reclamation for full site and bond release

Inspection Summary: NOTE: A previous version of this inspection report was used as the basis to begin the process for a partial release of \$3,480 from the existing surety of \$10,480, but that version of the inspection report is being replaced by the current version, since additional information has been provided by the operator, and since a correction to the number of growing seasons since 2013 was needed.

This site has been repeatedly inspected in recent years to evaluate revegetation, with bare ground, weeds, and a lack of seeded species observed. The BLM has given their approval of a full bond release. In this inspection, revegetation was mostly weedy. Halogetan was prominent site-wide, with cheatgrass and other non-noxious weeds also present. Cheatgrass and halogetan dominate the graded flat areas where some equipment and scrap metal had been stored at the lowest elevations of the disturbance near the entry road. Two mature scotch thistle plants that had gone to seed were found there, with a non-noxious thistle. In the regraded processing area and also in the adjacent mine areas, the same weeds are dominant, though with less cheatgrass. Seeded species were present in a few small patches of crested wheatgrass, another unidentified wheatgrass, Indian ricegrass, a possible orchardgrass, and alfalfa were growing, as well as some unidentified but non-noxious shrubs. Significant bare areas with small halogetan growth remain, including in the rocky areas. Relatively minor erosion in the ephemeral channel may partially result from lack of vegetation.

In undisturbed areas up-gradient of the mine disturbance area, native species (e.g. needle-andthread grass, other plants) exist, and some establishment of volunteer natives is probable over time, unless cheatgrass invades first. General undisturbed areas down-gradient of the mine disturbance appear to have a combination of weeds (halogetan and cheatgrass) and some beneficial vegetation.



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No topsoil was apparently saved or spread. Had it been present, it may or may not have had significant weed seed (e.g. cheatgrass) in it. In the quarry areas, very little recoverable soil would have been present prior to mining.

Photos were taken to document site conditions.

<u>Summary of Reported Revegetation Work:</u> In July 2016, the operator provided a summary of the initial and subsequent revegetation efforts in 2013, 2014, and 2015, and has requested that the Division consider his revegetation efforts sufficient to justify a bond release. This summary reports that revegetation work occurred on a disturbance area of 1.2 acres, which is significantly less than the 6 acres of actual total mine disturbance. The Division received additional information from the operator on September 6, 2016 that reports the seeded area to be 3.2 acres, among other detail, which provide a more complete picture than this summary.

The site was regraded in the summer of 2013, and, per the July and September correspondence, broadcast seeded in early November 2013 at the direction of the BLM. Based on 30 lbs bulk seed purchased (not PLS), the initial 2013 seed rate over 3.2 acres was about 10 lbs bulk seed per acre. The 2014 mix and rate were not identified, though effort was made to put seed "under the soil" by a hand drill seeding method. In late May 2015, about 20 lbs of seed (apparently mostly alfalfa) was purchased for seeding. Seeded species were not observed outside of the general processing area. It is possible that some growth from the seedings will still emerge.

Conclusions and Recommendations: After three growing seasons, the site is mostly weedy, with isolated growth of seeded species and significant bare areas remaining. Surrounding areas adjacent to and down-gradient from the mine area are also very weedy, with better native vegetation up-gradient of much of the disturbed areas. The BLM has determined that reclamation is adequate, and authorized the full release of reclamation surety. Since the BLM no longer requires 40% of the original reclamation surety to be retained, a partial release has been recommended and initiated by the Division. Further discussion with the operator and possibly the BLM regarding Scotch thistle, past revegetation work, and any possible need for supplemental work and any associated reclamation bond should be considered.

Inspector's Signature

PNB: pbb

cc: David Weston, Stone Resources LLC

Todd Leeds, BLM-Fillmore; tleeds@blm.gov

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View from below the former processing area, with Scotch thistle.

Halogetan and cheatgrass growth on ripped areas below the processing area.



View of regraded processing and quarry areas. Some bare areas are visible.

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Mixture of halogetan skeletons (tan) and live halogetan plants at the foot of the mine slope area, with little or no seeded species.



Patch of crested wheatgrass where water has ponded.



Mixture of crested wheatgrass and halogetan.